# Commonwealth of Kentucky Division for Air Quality

## PERMIT APPLICATION SUMMARY FORM

Completed by: Frough Shewani P.E.

| GENERAL INFORMATION:   |  |   |  |
|--|--|---|--|
| Name:  | Publishers Pri   | nting Company-Lebanon Junction Facility     |  |
| Address:   | 13487 South Preston Highway                              |   |  |
|  |  | etion, KY 40150                             |  |
| Date application received:   | January 07, 20   |   |  |
| SIC/Source description:  | 2721/Periodicals: Publishing, or Publishing and printing |   |  |
| AFS (10-digit) Plant ID:   | 21-029-00032   |   |  |
| AI#:   | 470  |   |  |
| Activity # :   | APE2005000   | 1   |  |
| Permit number:   | V-05-014   |   |  |
| APPLICATION TYPE/PERMIT A  | ACTIVITY:  |   |  |
| Initial issuance   |  | [ ] General permit                          |  |
| Permit modification  |  | [ ] Conditional major                       |  |
| Administrative   |  | [X] Title V                                 |  |
| —<br>Minor   |  | [X] Synthetic minor                         |  |
| — Significant  |  | [ ] Operating                               |  |
| [X] Permit renewal   |  | [X] Construction/operating                  |  |
|  |  |   |  |
| COMPLIANCE SUMMARY:  |  |   |  |
| ] Source is out of complian  |  | [ ] Compliance schedule included            |  |
| [X] Compliance certification   | signed   |   |  |
| APPLICABLE REQUIREMENTS  | LIST:  |   |  |
| ] NSR [ ] NS   |  | [X] SIP                                     |  |
|  | ESHAPS   | [ ] Other                                   |  |
| ] Netted out of PSD/NSR  |  | Not a major modification per 401 KAR 51:017 |  |
| . 1  |  | 1(23)(b) or 51:052 1(14)(b)                 |  |
|  |  |   |  |
| MISCELLANEOUS:   |  |   |  |
| Acid rain source   |  |   |  |
| Source subject to 112(r)   | 11   |   |  |
| Source applied for federa  | -  |   |  |
| Source provided terms fo   |  | erating scenarios                           |  |
| <ul><li>] Source subject to a MAC</li><li>] Source requested case-by</li></ul> | i Standard   | r (i) datarmination                         |  |
| Application proposes nev   | -case 112(g) 01  |   |  |
| [X] Certified by responsible   |  | ology                                       |  |
| [X] Diagrams or drawings in  |  |   |  |
| Confidential business info   |  | submitted in application                    |  |
| Pollution Prevention Mea   |  | · ····································      |  |
| [X] Area is non-attainment (   |  | Ozone and PM 2.5                            |  |

### **EMISSIONS SUMMARY:**

### **Existing Facility:**

| POLLUTANT                                 | POTENTIAL EMISSIONS (TPY) | ALLOWABLE<br>Emission (TPY)  |  |
|---|---------------------------|------------------------------|--|
| Carbon Monoxide (CO)                      | 19.53                     | NA                           |  |
| Nitrogen Oxides (NOx)                     | 23.25                     | NA                           |  |
| Sulfur Dioxide (SO <sub>2</sub> )         | 0.14                      | NA                           |  |
| Particulate Matter (PM/PM <sub>10</sub> ) | 1.752                     | NA                           |  |
| EP 07 (Press 411)                         | 16.35                     | 20.0*                        |  |
| EP 08 (Press 409)                         | 9.8                       | 36.0**                       |  |
| EP 09 (Press 410)                         | 14.91                     | 20.0***                      |  |
| VOC (The rest of the source)              | 112.68                    | No allowable was established |  |
| Cumene                                    | 0.338                     | NA                           |  |
| Ethylene Glycol                           | 26.05                     | NA                           |  |
| Naphthalene                               | 47.28                     | NA                           |  |
| Xylene                                    | 0.184                     | NA                           |  |
| Combined HAPs                             | 73.85                     | NA                           |  |

<sup>\*</sup> VOC emission shall not equal or exceed 20 tons/year based on a 12 month rolling total to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality.

<sup>\*\*</sup> VOC emission shall not equal or exceed 36 tons/year based on a 12 month rolling total to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality.

<sup>\*\*\*</sup> VOC emission shall not equal or exceed 20 tons/year based on a 12 month rolling total to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality.

### **Emission from New Construction EP 13(Press 416):**

| POLLUTANT                                 | POTENTIAL EMISSIONS (TPY) | ALLOWABLE<br>Emission (TPY) |  |
|---|---------------------------|-----------------------------|--|
| Carbon Monoxide (CO)                      | 1.472                     | NA                          |  |
| Nitrogen Oxides (NOx)                     | 1.752                     | NA                          |  |
| Sulfur Dioxide (SO <sub>2</sub> )         | 0.0105                    | NA                          |  |
| Particulate Matter (PM/PM <sub>10</sub> ) | 0.133                     | NA                          |  |
| VOC                                       | 9.75                      | 10.0****                    |  |
| Ethylene Glycol                           | 0.408                     | NA                          |  |
| HAP 0.408                                 |                           | NA                          |  |

<sup>\*\*\*\*</sup> VOC emission shall not equal or exceed 10.0 tons/year based on a 12 month rolling total to preclude the applicability of 401 KAR 51:052, Review of new sources in or impacting upon non attainment areas

## **Resulting Source Wide (including new construction):**

| POLLUTANT                                 | POTENTIAL EMISSIONS<br>(TPY) | ALLOWABLE<br>Emission (TPY)  |  |
|---|------------------------------|------------------------------|--|
| Carbon Monoxide (CO)                      | 21.0                         | NA                           |  |
| Nitrogen Oxides (NOx)                     | 25.00                        | NA                           |  |
| Sulfur Dioxide (SO <sub>2</sub> )         | 0.15                         | NA                           |  |
| Particulate Matter (PM/PM <sub>10</sub> ) | 1.885                        | NA                           |  |
| EP 07 (Press 411)                         | 16.35                        | 20.0*                        |  |
| EP 08 (Press 409)                         | 9.8                          | 36.0**                       |  |
| EP 09 (Press 410)                         | 14.91                        | 20.0***                      |  |
| EP 13 (Press 416)                         | 9.75                         | 10.0****                     |  |
| VOC (The rest of the source)              | 112.68                       | No allowable was established |  |
| Cumene                                    | 0.34                         | NA                           |  |
| Ethylene Glycol                           | 26.46                        | NA                           |  |
| Naphthalene                               | 47.29                        | NA                           |  |
| Xylene                                    | 0.184                        | NA                           |  |
| Combined HAPs                             | 74.42                        | NA                           |  |

## TOXIC ANALYSIS:

| Toxics          | PTE CONC.<br>UG/M**3 | PRG#/PDRV<br>UG/M**3 | PTE<br>CONC. <prg# <br="">PDRV</prg#> |
|-----------------|----------------------|----------------------|---------------------------------------|
| Xylene          | 0.456                | 730                  | YES                                   |
| Ethylene Glycol | 65.6                 | 7300                 | YES                                   |

### SOURCE PROCESS DESCRIPTION:

Publishers Printing Company is an offset lithographic paper printing plant which prints magazines. Printing takes place on 14 existing offset lithographic presses each with a natural gas fired dryer and propane as a back up fuel. The source is proposing to add one press EP # 13 (Press 416) and removed two presses (Press 408 and 413) with the renewal of their Title V permit (V-99-033 Revision 2). Overall, the source will have a total 13 presses. Insignificant activities consist of a 30,000 gallon propane tank, five natural gas/propane space heaters, six chillers with cooling towers, five ink jet head cleaning stations, five hot melt magazine binding gluers, maintenance activities of the presses which consist of surface preparation for maintenance painting and a maintenance paint spray booth, a scrap paper collection system, two natural gas fired boilers with propane as backup and a cold solvent cleaner using mineral spirits as the cleaning agent.